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Ethnobotanical assessment of plants used to aid parturition in Abuja, Nigeria

OP Ajagbonna[1]*, LA Adeniran[2] & RI Lawal[2]

1. *Department of Pharmacology, Faculty of Veterinary Medicine, University of Abuja, Nigeria*
2. *Department of Physiology and Biochemistry, Faculty of Veterinary Medicine, University of Abuja, Nigeria*

*Correspondence: Tel.: +2348035074835; E-mail: opajagbonna@yahoo.com

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Abstract

Medicinal plants used to aid parturition in many parts of Nigeria are poorly described, though herbal remedies used to aid parturition in human and animal have long been recognized as one of the oldest form of remedies. The aim of this study was to identify native medicinal plants, their uses, methods of preparation and evaluation of their side effects in Federal Capital Territory (FCT). Data were collected from traditional medical practitioners, herbalists and herb sellers in twelve towns and villages in three local councils of FCT, 41 medicinal plants belonging to twenty one families were identified. The most frequently used families were *Asclepiadaceae* and *Asdepiadaceae.* This survey showed that *Leptodenia lancifolia* and *Calotropis procera* were among the frequently used plants to manage cases of dystocia, retained placenta and aid parturition in animals. This survey signifies the ethno medicinal value of many plant species found in Federal Capital Territory.

Keywords: Ethnobotanical, Federal Capital Territory, Medicinal plants, Parturition, Survey

Introduction

Parturition is the culmination of pregnancy or gestation period with the expulsion of one or more new born infants from the uterus (Columbia, 2006). A highly complex mechanism is involved in the pregnancy maintenance which includes mother, fetus and placenta. Delivery is composed of inflammatory and endocrine interactive paths that tip the balance in favor of coordinated uterine contractility and cervical dilation (Vannuccini and Silvia 2016). Animals are prone to maximum injuries and infections during parturition. This may affect the life of the fetus and sometimes the productivity of the dam. Dystocia which means difficult birth or inability to expel fetus or fetuses through the birth canal (Linde-Forsberg, 2005; Kim *et al*., 2017) is characterized by oversized fetuses, abnormal fetal position, uterine torsion and failure of the cervix to dilate (Meyer *et al*., 2001; Björkman 2018). Increasing cases of dystocia in animals is reported worldwide (Wiesner & Werner, 2017). There was 5% reported cases of dystocia in Holstein-Friesian in Ireland and 18% dystocia rate in Devon rex cat in United Kingdom (Heringstad *et al*., 2007). Also, 5.7% -10.64% cases of dystocia were reported among the different breeds of goat in West Africa (Osuagwuh *et al.,* 1980). In Nigeria, high cases of dystocia between

20.7-23.8% sheep and goat were reported in Bauchi, North East, Nigeria, while 15.1% - 61.9% cases of retained placenta in cattle were also documented in the same area (Abdullahi, 1999).

Different approaches to aid parturition have been reported in Federal Capital Territory (FCT). Due to economic reasons and accessibility to health facilities, many of the rural dwellers use herbal remedies (Sofowora, 1982; Rawat and Uniyal, 2004). Many traditional healing herbs and their parts have been shown to have medicinal value which can be used to aid parturition (Dhar *et al*., 1999; Mandhwani *et al*., 2017; Wiesner & Werner 2017 Adhikari *et al*., 2018). Different plants used in traditional medical practice in Nigeria had been documented which shows that variations exist in different areas and the plant used for different purposes (Alfred *et al*., 2012). It is noteworthy that many herbal remedies used by human were also prescribed for treatment of animals.

Based on our literature search on the internet there was no documentation of medicinal plants that are used to aid parturition in domestic animals in the FCT. To the best of our knowledge this is the first documentary evidence of the medicinal plants in the FCT used for veterinary purpose to aid parturition in domestic animals. Knowledge of medicinal plants used in the FCT can be a good source for further scientific studies in search for better drugs with less side effects (Rahmatulla *et al*., 2010; Jokar *et al*., 2017).

Materials and Methods

Study area

Abuja is located in the centre of Nigeria and has a land area of 8,000 square kilometers with a population of approximately 2,245,000. (Abuja Demographia, 2012). It is bounded on the North by Kaduna state, on the West by Niger state, on the East and South-East by Nasarawa state and on the South-West by Kogi state. It falls within latitude 7^{o} 25N and 9^{o} 20^{o} North of the equator and longitude 5^{o} 45' and 70 39'. Its climate is typically hot during the dry season between November and March and warm/humid during the rainy season from April to October. The cold hamattan season occurs between December and February characterized by dusty cold winds that limit visibility and cause dry skin (World Weather Information, 2012). The study area comprises of twelve towns in three local council areas in Federal Capital Territory. Dobi, Zuba, Giri and Gwagwalada in Gwagwalada area Council. Sheda, Shetsco, Ceceyi, Kuti-Chichi in Kwali Area Council, Mamuba, Damwa, Aduga and Chibiri in Kuje Area Council.

Informed consent

Informed consent was obtained orally from all participants made up of the Traditional Medical Practitioners (TMP), herbalists or herb sellers before inception of the interview.

Administration of questionnaire

Ethno medicinal information on the plants used to aid parturition were obtained by consulting Traditional Medical Practitioners (TMP) and herb sellers. The use of semi-structured questionnaire and oral interview were adopted to obtain the relevant ethno medicinal data. The questionnaires were administered by trained interviewers and in some cases, monetary incentives were given to unwilling respondents. It was divided into 3 sections:

Section (A) dealt with demographic information such as: age, sex, religion, marital status, educational background, practice specification, tribe and working experience.

Section (B) was on professional experience in the management of conditions associated with parturition. Questions like frequency of treatment, treatment other than herb, source of knowledge of herbal treatment, duration of treatment, availability of plant/plant parts, accompanied side effect(s) and accompanied verbal instruction.

Section (C) dealt with opinion on plants and recipes used for parturition/childbirth.

Collection and authentication of plant samples

Fresh plant samples were collected from the traditional medical practitioners (TMPs), herbalists or herb sellers. Herbal remedies were authenticated by comparison with appropriate voucher specimens at the herbaria in Department of Botany, University of Abuja and Federal University of Technology Minna.

Results

In this survey, a total of 60 questionnaires i.e 20 per local council, but a total of 50 responds were received through the use of semi-structured questionnaires administered by trained interviewers within the three LGA's covered by this survey (namely Gwagwalada, Kwali and Kuje). These respondents were mainly TMPs (26%), herbalists (14%) and herb sellers (60%).

Table 1: Demographic survey of respondents

Demograph		%
Age group	20-24	18
	25-29	22
	35-80	60
Sex	Female	36
	Male	64
Religion	Christian	32
	Islam	68
	Other Specify	0
Marital Status	Single	4
	Married	84
	Divorced	12
Educational Background	Primary	44
	Secondary	44
	Tertiary	6
	None	6
Practice specification	Herbalist	14
	Herb-seller	60
	Traditional Medical practitioner	26
Tribe	Hausa	66
	Yoruba	20
	Igbo	2
	Gwari	10
	Fulani	2
	Others	0
Working experience	1-5 years	64
	6-10 years	24
	11-15 years	4
	20 years and above	8

Sixty six percent of the herb sellers were men. The data generated from this survey gave an insight into the age, sex, religion, mode of treatment, duration of treatment and sources of knowledge of the TMP/ herb sellers and herbalists. Majority of these respondents fell within age range 35-80 years. Respondents were mainly Muslims from the Hausa ethnic group in Nigeria.

Most plants identified have no side-effects according to the respondents. Sixty six percent of the respondents confirmed regular supply of their herbal remedies. It was discovered that the knowledge of herbal treatment was mainly by training while duration of treatment varied between 6 to 48 h. Eighty percent of the respondents claimed they use verbal instructions in administering herbal recipes to their clients. This is believed to enhance the understanding of the dosage and methods of application of the remedies. Majority of the recipes documented were for oral administration while a few were for external use.

In this ethno botanical survey, Forty-one plants were identified to be used in aiding parturition in Federal Capital Territory, belonging to 37 genera in 27 families. The plants frequently used to aid parturition in different Area Councils of FCT are as follows, *Grewia mollis* in Kuje Area Council, *Hybanthus enneaspermus, G. mollis in* Gwagwalada Area Council and *H. enneaspermus in* Kwali Area Council. Table 1 showed the demographic survey of respondents while Table 2 documented the professional experiences of the respondents in management of conditions associated with parturition.

List of some recipes used is in Table 3. Tables 4, 5 and 6 listed plants used to aid parturition in Kuje, Gwagwalada and Kwali Area Council. The families of plant species is listed in Table 7, while the plant species commonly mentioned by the respondents in the management of conditions associated with parturition in the FCT is documented in Tables 8 and 9.

Among the listed plants, *G. mollis, Leptadenia lancifolia, Calotropis procera, H. enneaspermus* and *Abelmoschus esculentus* were frequently used to aid parturition in the Federal Capital Territory. This survey further showed that *L. lancifolia* and *C. procera* were found to be used in all the local councils in FCT to aid parturition.

Table 2: Professional experiences of condition associated with parturition

Parameters		%
Frequency of treatment	Regular	78
	Irregular	22
Other treatment other than herbs	Animal parts	22
	Divination/oracle/incantation	0
	None	78
Source of knowledge of herbal treatment	Ancestral	50
	Training	40
	Training/ancestral	10
Duration of treatment	1-3 h	34
	3-6 h	12
	6 h and above	54
Plants availability	Forest alone	20
	Garden	66
	Not always available	14
Accompanied side effect(s)	None	88
	Bleeding	10
	Others	2
Accompanied verbal instruction	Yes	80
	No	10
	None	10

Table 3: List of some recipes

Salt and lime orange	Water	Concoction
Catfish and locus beans	Water	Concoction
Guinea corn powder	Water	Decoction
Salt and locust beans		Concoction

Table 4. List of the commonly mentioned plants used in the management of conditions associated with parturition in Kuje Area council, FCT

Family	Botanical name	Common name	Local name	Part(s) used	Frequency
Malvaceae	*Grewia mollis*	-	Dargaza (H)	Roots	10
Sterculaceae	*Sterculia setigera*	Gum tree	Kukuki (H)	Leaves	5
Fabaceae	*Pilostigma thonningii*	Monkey bread	Kalgo (H)	Leaves	3
Malvaceae	*Abelmoschus esculentus*	Okro	Kubewa (H)	Leaves	7
Asdepiadaceae	*Calotropis procera*	Sodom apple	Tumfafiya (H)	Leaves	10
Poaceae	*Sorghum bicolor*	Guinea corn	Karan dafi (H)	Leaves	1
Asclepiadaceae	*Leptodenia lancifolia*	Schmach	Yadiya (H)	Leaves	9
Bignoniaceae	*Stereospermum kunthianum*	-	-	Leaves	5
Moringaceae	*Moringa oleifera*	Drumstick	Zogale (H)	Leaves	1
Annonaceae	*Asimina triloba*	Pawpaw leaf	-	Leaves	1
Sapindaceae	*Blighia sapida*	Akee fruit	-	Leaves	7
Asteraceae	*Microglossa pyrifolia*	-	-	Leaves	1
Euphorbiaceae	*Euphorbia hirta*	Asthma plant	-	Whole plant	5
Caesalpinioidaceae	*Isoberlina doka*	Doka	Farar dooka (H)	Seeds	1
Malvaceae	*Sida corymbosa*	Broom-weed	Karkarshin kwado (H)	Leaves	1
Anacardiaceae	*Spondias mombi*	Hog-plum	Isada (H)	Leaves	2
Fabaceaae	*Tamrindus indica*	Tamarind	Tsamia (H)	Seeds	5
Lamiaceae	*Ocimum tenuiflorum*	Holy-basil	-	Bulb	10
Combertaceae	*Guiera senegalensis*	Moshi medicine	Sabara (H)	Leaves	5
Euphorbiaceae	*Euphorbia lateriflora*	-	Oji (H)	Seeds	1
Lamiaceae	*Hyptis suaveolens*	Pig nut		Leaves	1
Caesalpiniceae	*Cassia singueana*	-	Lomfu (H)	Leaves	1

Key: F: Fulani, H: Hausa, Y: Yoruba

Table 5. List of the commonly mentioned plants used in the management of conditions associated with parturition in Gwagwalada Area council, FCT

Family	Botanical name	Common name	Local name	Part(s) used	Frequency
Tiliaceae	*Grewia mollis*	-	Dargaza (H)	Roots	10
Sterculaceae	*Sterculia setigera*	Gum tree	Kukuki (H)	Leaves	5
Fabaceae	*Pilostigma thonningii*	Monkey bread	Kalgo (H)	Leaves	3
Malvaceae	*Abelmoschus esculentus*	Okro	Kubewa (H)	Leaves	7
Asdepiadaceae	*Calotropis procera*	Sodom apple	Tumfafiya (H)	Leaves	10
Rubiaceae	*Nauclea latifolia*	African peach	Epo-egbesi (Y)	Leaves	2
Asclepiadaceae	*Leptodenia lancifolia*	Schmach	Yadiya (H)	Leaves	15
Verbenaceae	*Duranta repens*	Yellow garden		Leaves	7
Moringaceae	*Moringa oleifera*	Drumstick	Gawara (F)	Leaves	5
Annonaceae	*Asimina triloba*	Common pawpaw		Leaves	7
Labiatae	*Ocimum gratissimum*	Clove basil	Daidoya (H)	Leaves	5
Euphorbiaceae	*Euphorbia hirta*	Asthma plant	-	Whole plant	10
Apocynaceae	*Saba comorensis*	Rubber vine	Orombo (Y)	Leaves	15
Asteraceae	*Vernomia amygdalina*	Bitter-leaf	Ewuro (Y)	leaves	4
Asteraceae	*Bidens pilosa*	Spanish needle	-	Leaves	1
Violaceae	*Hybanthus enneaspermus*	Spade flower	Abinwere (Y)	leaves	10
Malvaceae	*Hibiscus sabdariffa*	hibiscus	Zoboroto (H)	Leaves	4
Cyparaceae	*Scleria depressa*	Sword-grass	-	Leaves	1
Rutaceae	*Limonia acidissima*	Wood apple	-	Root	5
Commelinaceae	*Commelina africana*	Comelina	Balaasaanaa (H)	Leaves	1
Lamiaceae	*Ocimum basilicum*	Sweet basil	Efirin (Y)	Leaves	7

Key: F: Fulani; H: Hausa and Y: Yoruba

Table 6. List of the commonly mentioned plants used in the management of conditions associated with parturition in Kwali Area council, FCT

Family	*Botanical name*	Common name	Local name	Part(s) used	Frequency
Tiliaceae	*Grewia mollis*	-	Dargaza (H)	Roots	14
Sterculaceae	*Sterculia setigera*	Gum tree	Kukuki (H)	Leaves	7
Fabaceae	*Pilostigma thonningii*	Monkey bread	Kalgo (H)	Leaves	2
Malvaceae	*Abelmoschus esculentus*	Okro	Kubewa (H)	Leaves	7
Asdepiadaceae	*Calotropis procera*	Sodom apple	Tumfafiya (H)	Leaves	7
Asclepiadaceae	*Leptodenia lancifolia*	Schmach	Yadiya (H)	Leaves	5
Tiliaceae	*Corchorus olitorius*	Jute	Ayoyo (Y)	Leaves	5
Moringaceae	*Moringa oleifera*	Drumstick tree	-	Leaves	4
Annonaceae	*Asimina triloba*	Common Pawpaw	-	Leaves	4
Labiateae	*Ocimum gratissimum*	Clove basil	Daidoya (H)	Leaves	5
Cucubitaceae	*Momordia charantia*	Bitter lemon	Daddagu (H)	Leaves	1
Apocynaceae	*Strophanthus sarmentosus*	Spider tresses	-	Leaves	5
Euphorbiaceae	*Euphorbia balsamifera*	Balsam spurge	Aguwa (H)	Leaves	10
Anacardiaceae	*Sclerocarya birrea*	Tree of life	Ludu (H)	Bark	4
Violaceae	*Hybanthus enneaspermus*	Spade flower	Abinwere (Y)	leaves	8
Amplidaceae	*Cissus populnea*	Food gum	Dafara (H)	Stem	6
Cynomoriaceae	*Cynomorium songaricum*			Leaves	2
Lamiaceae	*Ocimum basilicum*	Sweet basil	Efirin (Y)	Leaves	6

Key: F: Fulani; H: Hausa and Y: Yoruba

Discussion

In this study, 41 medicinal plants used to aid parturition were reported. The most frequently used species (Table 8) are *G. mollis* (n=34), *L. lancifolia* (n=29) and *C. procera* (n=27). These plants are used for treatment of different ailments and are found everywhere in the surveyed areas. The plant species belong to Malvaceae, Ascepiadoceae and Apocynaceae families respectively. Our findings are in agreement with the general rule, most people in the rural villages use the plants that are in their surrounding for food and medicinal purposes (Johns *et al*., 1990; Raihan *et al*., 2010). Our results further showed that the following plants are used by the respondents across the three local area councils, *G. mollis*, *Sterculia setigera*, *Pilistigma thonningii*, *Abelmoschus esculentus*, *Asimina triloba*. *Moringa olifera*, *C. procera* and *L. lancifolia*. Other plants that have been frequently used in management of cases dealing with parturition which are not recorded here include *Commelina africana*, *Duranta repens*, *Hyptis suaveolens*, *Ocimum gratissimum*, *Saba comorensis*, *Sclerocarya birrea*, *Sida corymbosa* and *Vernonia amygdalina* (Singh *et al*., 1984, Zumsteg *et al*., 2007, Alfred *et al*., 2012).

The leaves are the most commonly used plant parts but the stems, bulbs and seeds are also used for preparation of remedies. All treatments are concoctions and decoctions in 75% and 25% cases respectively (Table 3). The plant parts are usually extracted in water by maceration which is the practice with many traditional medicine (Idensi *et al*., 2016). Some recipes used in herbal preparations includes salt, lime, locust beans, Guinea corn powder and in few cases animal parts like catfish may be added.

Table 7: List of families of plants frequently use in aid parturition in FCT

S/n	Family	Frequency
1.	Fabaceaae	13
2.	Amplidaceae	6
3.	Lamiaceae	24
4.	Combertaceae	5
5.	Rutaceae	5
6.	Euphorbiaceae	26
7.	Asclepiadaceae	56
8.	Caesalpinioidaceae	1
9.	Cynomoriaceae	2
10.	Commelinaceae	1
11.	Apocynaceae	20
12.	Verbenaceae	7
13.	Malvaceae	26
14.	Caesalpimioidaceae	1
15.	Labiatae	10
16.	Anacardiaceae	6
17.	Cyperaceae	1
18.	Tiliaceae	39
19.	Stercuiaceae	17
20.	Poaceae	1
21.	Bignoniaceae	5
22.	Annonaceae	12
23.	Violaceae	18
24	Moringaceae	10
25.	Rubiaceae	2
26	Asteraceae	6
27.	Sapindaceae	7
28.	Cucubitaceae	1
	Total	328

Table 8: List of the commonly mentioned plants used in the management of conditions associated with parturition in the FCT

Family	Botanical name	Common name (English)	Local name	Part(s) used	Frequency
Fabaceaae	*Tamrindus indica*	Tamarind	Tsamiya (H)	Seeds	5
Amplidaceae	*Cissus populnea*		Dafara (H)	Stem	6
Lamiaceae	*Ocimum tenuiflorum*	Holy-basil		Bulb	10
Combretaceae	*Guiera senegalensis*	Oshi	Sabara (H)	Leaves	5
Caesalpiniceae	*Cassia singueana*	-	Runfu (H)	Leaves	1
Euphorbiaceae	*Euphorbia lateriflora*	-	Oji (H)	Leaves	1
Asclepiadaceae	*Leptodenia lancifolia*	Schmach	Yadiya (H)	Leaves	29
Verbenaceae	*Duranta repens*	Yellow garden	-	Leaves	7
Lamiaceae	*Ocimum bacilicum*	Sweet basil	Efirin (Y)	Leaves	13
Cynomoriaceae	*Cynomorium songaricum*	-	-	Leaves	2
Asdepiadaceae	*Calotropis procera*	Sodom apple	Tumfafiya (H)	Leaves	27
Euphorbiaceae	*Euphorbia hirta*	Garden spurge	-	Whole plant	15
Apocynaceae	*Saba comorensis*	Rubber vine	Orombo (Y)	Leaves	15
Lamiaceae	*Hyptis suaveolens*	Pignut	-	Leaves	1
Caesalpinioidaceae	*Isoberlina doka*	Doka	Farar dooka (H)	Seed	1
Anacardiaceae	*Sclerocarya birrea*	Tree of life	Ludu (H)	Bark	4
Malvaceae	*Hibiscus sabdariffa*	Roselle	Zoborodo (H)	Leaves	4
Malvaceae	*Sida corymbos*	Broom-weed	Miyar tsanya (H)	Leaves	1
Rutaceae	*Limonia acidissima*	Wood apple	Hannu (H)	Root	5
Commelinaceae	*Commelina Africana*	Comelina	Balaasaanaa (H)	Leaves	1
Labiatae	*Ocimum gratissimum*	Clove basil	Daidoya (H)	Leaves	10
Anacardiaceae	*Spondias mombi*	Hog-plum	Isada (H)	Leaves	2
Tiliaceae	*Grewia mollis*	-	Dargaza (H)	Roots	34
Sterculaceae	*Sterculia setigera*	Gum tree	Kukuki (H)	Leaves	17
Fabaceae	*Pilostigma thonningii*	Monkey bread	Kalgo (H)	Leaves	8
Malvaceae	*Abelmoschus esculentus*	Okro	Kubewa (H)	Leaves	21
Cyperaceae	*Scleria depressa*	Sword-grass	-	Leaves	1
Poaceae	*Sorghum bicolor*	Guinea corn	Karan dafi (H)	Leaves	1
Tiliaceae	*Gorchorus olitorius*	Jute	Rama (H)	Leaves	5
Moringaceae	*Moringa oleifera*	Drumstick	Zogale (H)	Leaves	10
Annonaceae	*Asimina triloba*	Pawpaw leaf	-	Leaves	12
Cucubitaceae	*Momordia charantia*	Bitter lemon	Ejirin (Y)	Leaves	1
Apocynaceae	*Strophanthus samentosus*	-	-	Leaves	5
Euphorbiaceae	*Euphorbia balsmifera*	Balsam purge	-	Leaves	10
Violaceae	*Hybanthus enneaspermus*	Spade flower	Abinwere (Y)	leaves	18
Bignoniaceae	*Sterospermum kunthianum*	-	-	Leaves	5
Rubiaceae	*Nauclea latifolia*	African peach	-	Leaves	2
Asteraceae	*Vernonia*	Amygdalina	Ewuro (Y)	Leaves	4
Sapindaceae	*Blighia sapida*	Akee fruit	-	Leaves	7
Asteraceae	*Bidens pilosa*	Spanish needle	-	Leaves	1
Asteraceae	*Microglossa pyrifolia*	-	-	Leaves	1

Key: F: Fulani; H: Hausa and Y: Yoruba

Table 9: List of the commonly mentioned plants used in the management of conditions associated with parturition in the FCT with comparison to different local council areas

S/n	Botanical name	Kuje	Gwagwalada	Kwali	Frequency
1.	*Isoberlina doka*	1	-	-	1
2.	*Ocimum gratissimum*	-	5	5	10
3.	*Scleracarya birrei*	-	-	4	4
4.	*Sida corymbosa*	-	-	1	1
5.	*Spodias mombi*	2	-	-	2
6.	*Scleria depressa*	-	1	-	1
7.	*Grewia mollis*	10	10	14	34
8.	*Sterculia setigera*	5	5	7	17
9.	*Pilistigma thonningii*	3	3	2	8
10.	*Abelmosschus escuientus*	7	7	7	21
11.	*Sorghum bicolor*	1	-	-	1
12.	*Stereospermum kunthianum*	5	-	-	5
13.	*Asimina triloba*	1	7	4	12
14.	*Hybanthus enneapermus*	10	8	18	36
15	*Moringa oleifera*	1	5	4	10
16.	*Nauclea latifolia*	-	2	-	2
17.	*Vernonia amygdalina*	-	4	-	4
18.	*strophanthus samentosus*	-	-	5	5
19.	*Euphorbia balsamifera*		-	10	10
20.	*Blighia sapida*	7	-	-	7
21	*bidens spilosa*	-	1	-	1
22	*Microglossa pyrifloia*	1	-	-	1
23.	*Gorchorus olitorius*	5	-	5	5
24.	*Momordia charantia*	-	-	1	1
25,	*Hibiscus sabdariffa*	-	4	-	4
26	*Hyptis suaveolens*	1	-	-	1
27.	*Duranta repens*	-	7	-	7
28.	*Sada comorensis*	-	15	-	15
29.	*calotropis procera*	10	10	7	27
30.	*Commelina Africana*	-	1	-	1
31.	*Cynomorium songaricum*	-	-	2	2
32.	*Ocimumbacilicum*	-	7	6	13
33.	*Euphorbia lateriflora*	1	-	-	1
34.	*Cassia singueana*	1	-	-	1
35.	*Leptadenia lancifolia*	9	15	5	29
36.	*Euphorbia hirta*	5	10	-	15
37.	*Limonia acidissima*	-	5	-	5
38.	*guiera senegalensis*	-	5	-	5
39.	*Ocimum tenuiflorum*	10	-	-	10
40.	*Cissus populnea*	-	-	6	6
41.	*Tamrindus indica*	5	-	-	5
	TOTAL	86	139	103	328

Due to the short shelve life of most herbal remedies (Idensi *et al*., 2016), in other to have freshly prepared remedies, it requires regular visit to TMPs, herb sellers or herbalists as was highlighted in our results (Table 2). There were 78% regular visit for treatment by clients which indicates the availability of the plants in the environment.

Analysis of the demographic data (Table 1) confirmed that majority of the respondent were married, males and Muslims, this supported their belief that men should fend for the family. This is incorporated in the traditional belief system of the people living in the surveyed areas. The literacy level of the studied population is high which gives hope of them adapting to new innovation techniques.

However, the low percent (6%) graduate population shows that many graduates are not interested in this vocation maybe due to the source of knowledge which is mainly through ancestral training or it is not bringing in so much monetary benefit. Between 1 and 10 years of working experience was recorded indicating moderate to good knowledge of the use of herbal remedies. Majority of the respondents were oblivious of any side effect, this may be due to the short duration of treatments which may last for just few hours but bleeding and increased blood pressure were being reported by the users of remedies.

In conclusion, the survey allowed us to list and document 41 medicinal plants used to aid parturition in FCT. Plants that have variety of medicinal use and are commonly found around the FCT were used in the management of cases of parturition in animals and humans.

Conflicts of Interest

The authors declare no conflicts of interest.

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